

Amendments to the Drawings:

The attached sheets of drawings include changes to Figures 1, 2A, 2B, 3A, 3B, 4A, and 4B.
These sheets replace the original sheets.

Attachment

Remarks/Arguments:

With this Response, no amendments to the claims have been made. Claims 1-34 are pending.

Drawings

Replacement sheets of Figs., 1, 2A, 2B, 3A, 3B, 4A, and 4B are enclosed. These figures contain the label "Prior Art" as required by the Office Action. Fig. 4 has also been amended to more clearly show demarcation line (420). With respect to the Examiner's comments regarding the relationship between Fig. 5 and Fig. 7, specifically, that "there appears to be no scale between the two," the applicant points to 37 C.F.R. § 1.84(k) restated in MPEP § 6.23.01. According to the Rules and the MPEP, the drawings do not have to be to scale, and moreover, if a scale is mentioned, such as "actual size" or "scale 1/2" on the drawings, it is not permitted because its meaning is lost with reproduction in a different format. Therefore, there is no requirement that different Figures show a scale relationship. The applicant respectfully requests withdrawal of this objection to the drawings.

Nonobviousness

The Office Action rejection is improper; it lacks a motivation to combine the references. The obviousness rejection combining applicant's prior art face shield with the Asikainen reference is an improper rejection for at least two reasons: 1) the problem of visualizing soft tissue elements has already been solved in Asikainen, and 2) the combination of applicant's prior art face shield would render the laser light guides in Asikainen useless for their intended purpose. For these reasons, there is no motivation to combine the prior art references. Without such a motivation, the obviousness rejection is improper and the pending claims are patentable over the cited references alone or in combination.

The Office Action rejects claims 1, 13, 14, 20, and 21 under 35 U.S.C. § 103(a) as unpatentable over Asikainen (U.S. Patent No. 5,454,023) in view of applicant's admitted prior art face shield. The rejection states that it would have been obvious to use applicant's prior art face shield in Asikainen for the purpose of implementing various soft tissue filtering profiles when necessary. The applicant respectfully disagrees.

1. The problem of visualizing soft tissue elements has already been solved in Asikainen.

MPEP § 2145 provides that motivation to combine prior art references may exist in the nature of the problem to be solved. *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276 (Fed. Cir. 2004). From this statement, logic dictates that if the problem is already solved by a prior art reference, then no motivation exists to combine that reference with another prior art reference to solve the same problem.

The supplied motivation to combine applicant's face shield with Asikainen appears to exist in how to implement various soft tissue filtering profiles. Page 5 of the Office Action. Asikainen expressly states that this problem, however, has already been solved: "A nonlimiting further object of the invention is to provide an apparatus which is suited [for] implementing different kinds of variable soft-tissue filtering profiles when necessary." Col. 2, lines 29-31 of Asikainen. With this statement, the applicant submits that Asikainen has already identified a solution to the problem of implementing different kinds of variable soft tissue filtering profiles. Therefore, there is no motivation to combine applicant's face shield with Asikainen for the purpose of implementing various soft tissue filtering profiles when Asikainen already teaches that such can be done. For at least this reason, the obviousness rejection lacks a motivation to combine. It is therefore improper and is requested to be withdrawn.

2. The combination of applicant's prior art face shield would render the laser light guides in Asikainen useless for their intended purpose.

MPEP § 2143.01 provides that if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984).

What follows is a discussion of the differences between the prior art references. Although the applicant understands that arguing the references individually does not negate an obviousness rejection, the applicant discusses these difference to point out that their combination would render both the Asikainen reference unsatisfactory for its intended purpose and applicant's face shield unsatisfactory for its intended purpose.

Asikainen employs lights projected on the patient's face to demark where attenuated X-rays will pass through a patient's face. See col. 3, lines 36-40 and col.3, lines 53-56. The light allows the dentist to exactly align the wedge-shaped soft tissue filter so that attenuated X-rays will pass through the patient's face at the desired locations. The light system allows positioning of the soft tissue filter without having to expose the patient to multiple X-ray exposures to obtain the desired X-ray image. See col. 4, lines 32-41.

On the other hand, the applicant's prior art face shield does not need laser lights in order for the dentist to see where attenuated X-rays will pass through the patient's face. This is because the face shield is constructed to have the general contours of a patient's face and is simply held against a patient's face by the patient during X-ray exposure. The dentist can clearly see what portions of the patient's face will be exposed to attenuated X-rays. The advantage of the simplicity of the face shield design is also its drawback. The face shield is constructed as a "one-size-fits-all," and although suitable for use with grown adults, it is unsuitable for use with small adolescents and children.

The Office Action rejection purports to use the applicant's face shield in the soft tissue filter screening apparatus of Asikainen to render the present invention obvious. One configuration would be to use applicant's face shield as it was intended, against the patient's face in combination with the invention of Asikainen. This would destroy the intended purpose of the light positioning system in Asikainen, for the reasons set forth below. Another configuration would be to place applicant's face shield at a distance from the patient's face. This would destroy the intended purpose of applicant's face shield, for the reasons set forth below.

Placing applicant's face shield against the patient's face obviates the need to have the light positioning system of Asikainen. The purpose of the light positioning system of Asikainen is to align the wedge-shaped attenuator and to project a line of demarcation on the patient's face to see where the attenuated X-rays will fall. If applicant's face shield is held against the patient's face, the dentist can clearly see where attenuated X-rays will fall on the patient's face without the need for the light positioning system.

Placing applicant's face shield at a distance from the patient's face by substituting it for Asikainen's wedge-shaped soft tissue filter screen destroys the intended use of applicant's face shield. The purpose of applicant's face shield is a simple screen to be placed against a patient's face to attenuate X-rays. This purpose is destroyed because now the face shield is at a distance from the patient's face. Moreover, the applicant's face shield must be significantly reduced in sized. There is no suggestion or motivation to reduce the size of applicant's face shield bearing in mind its purpose, that is, to be placed against a patient's face.

Yet another reason there is no motivation to combine applicant's face shield with Asikainen is that applicant's face shield, as discussed above, is "one-size-fits-all." This configuration is not well-suited for imaging patients with different sized necks, chins, or those patient's having a deformity. As a consequence, using applicant's face shield in place of the wedge-shaped soft tissue filter screen of Asikainen would not allow the implementation of various soft tissue filtering profiles, contrary to the motivation supplied by the Office Action.

With either configuration of the combination of applicant's face shield in Asikainen as set forth above, the intended purpose of Asikainen or the intended purpose of applicant's face shield is destroyed. In addition, because applicant's face shield cannot be adapted to fit the various shapes of patient's faces, its inclusion in Asikainen does not allow the implementation of various soft tissue filter profiles. Applicant therefore submits that for these reasons, the Office Action rejection lacks a motivation to combine the cited references. Applicant respectfully requests withdrawal of the rejection.

Office Action uses improper hindsight


The applicant notes the Office Action concludes in paragraph 12 of page 5 that it is obvious to make the soft tissue filter screen of the present invention modular for the purpose of capturing more profiles by allowing distinct portions of the screen to be adjustable relative to each other. This conclusion is unsupported by the cited references and is based upon hindsight gleaned from applicant's own invention. There is no teaching, disclosure, or suggestion in either applicant's unitary face shield or the unitary wedge-shaped soft tissue filter screen of Asikainen to make these soft tissue filter screens modular. This rejection is in error.

Independent claims 1, 14, 20, and 21, as argued above, are not rendered obvious over applicant's prior art face shield in view of Asikainen. Therefore, the claims dependent thereon, namely, claims 2-13, 15-19, 22-34, are also not obvious in view of the cited references. Reconsideration of the rejection is respectfully requested.

Conclusion

Claims 1, 14, 20, and 21 are not rendered obvious by the combination of applicant's face shield and the Asikainen reference because no motivation exists to combine these references. No motivation exists because the problem of visualizing soft tissue elements has already been solved in Asikainen and the use of applicant's prior art face shield in Asikainen would render the laser light guides in Asikainen useless for their intended purpose. For at least these reasons, the obvious rejection is in error. Reconsideration of the rejection is respectfully requested.

Respectfully submitted,



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Dated: December 27, 2005

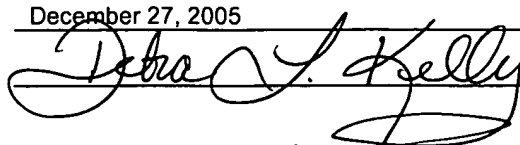
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